Attorney's Docket No.: 11752-010US1

Applicant: Cornish et al. Serial No.: 10/523,617

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## Amendments to the Claims:

: January 6, 2006

This listing of claims replaces all prior versions and listings of claims in the application:

# Listing of Claims:

1. (Currently amended) A method for treating a bone condition associated with breakdown of bone tissue or bone loss, comprising administering to a patient in need thereof an effective amount of preptin, preptin analog, or a peptide comprising an amino acid sequence that is at least 60% identical to SEQ ID NO: 1, 2, or 3, or a fragment thereof a peptide comprising an amino acid sequence that is at least 90% identical to SEQ ID NO: 1, 2, or 3, wherein the peptide promotes osteoblast proliferation.

#### 2-10. (Canceled)

- 11. (Currently amended) The method of claim 91, wherein the peptide comprises SEQ 1D NO: 1, 2, or 3 with up to 62 conservative amino acid substitutions.
- 12. (Currently amended) The method of claim 9 1, wherein the peptide comprises SEQ 1D NO: 1, 2, or 3 with up to 2 conservative amino acid substitutions.
- 13. (Currently amended) A method for increasing or maintaining bone density, comprising administering to a subject in need thereof an effective amount of preptin, preptin analog, or a peptide comprising an amino acid sequence that is at least 60% identical to SEQ ID NO: 1, 2, or 3, or a fragment thereof a peptide comprising an amino acid sequence that is at least 90% identical to SEQ ID NO: 1, 2, or 3, wherein the peptide promotes osteoblast proliferation.

14-22. (Canceled)

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23. (Currently amended) The method of claim 24 13, wherein the peptide comprises SEQ ID NO: 1, 2, or 3 with up to 6 3 conservative amino acid substitutions.

24. (Currently amended) The method of claim 21 13, wherein the peptide comprises SEQ ID NO: 1, 2, or 3 with up to 2 conservative amino acid substitutions.

25. (Currently amended) A method for stimulating osteoblast growth or modulating inhibiting osteoblast apoptosis, comprising administering to a subject in need thereof an effective amount of preptin, preptin analog, or a peptide comprising an amino acid sequence that is at least 60% identical to SEQ ID NO: 1, 2, or 3, or a fragment thereof a peptide comprising an amino acid sequence that is at least 90% identical to SEQ ID NO: 1, 2, or 3, wherein the peptide promotes osteoblast proliferation.

## 26-34. (Canceled)

- 35. (Currently amended) The method of claim  $\frac{33}{25}$ , wherein the peptide comprises SEQ ID NO: 1, 2, or 3 with up to  $\frac{6}{3}$  conservative amino acid substitutions.
- 36. (Currently amended) The method of claim 33 25, wherein the peptide comprises SEQ ID NO: 1, 2, or 3 with up to 2 conservative amino acid substitutions.

### 37-52. (Canceled)

- 53. (New) The method of claim 1, wherein the peptide is at least 95% identical to SEQ ID NO: 1, 2, or 3.
- 54. (New) The method of claim 1, wherein the peptide comprises SEQ ID NO: 1, 2, or 3.
- 55. (New) The method of claim 1, wherein the peptide consists of SEQ ID NO: 1, 2, or 3.
- 56. (New) The method of claim 13, wherein the peptide is at least 95% identical to SEQ ID NO: 1, 2, or 3.

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57. (New) The method of claim 13, wherein the peptide comprises SEQ ID NO: 1, 2, or 3.

- 58. (New) The method of claim 13, wherein the peptide consists of SEQ ID NO: 1, 2, or 3.
- 59. (New) The method of claim 25, wherein the peptide is at least 95% identical to SEQ ID NO: 1, 2, or 3.
- 60. (New) The method of claim 25, wherein the peptide comprises SEQ ID NO: 1, 2, or 3.
- 61. (New) The method of claim 25, wherein the peptide consists of SEQ ID NO: 1, 2, or 3.
- 62. (New) A method for treating a bone condition associated with breakdown of bone tissue or bone loss, comprising administering to a patient in need thereof an effective amount of a peptide comprising the amino acid sequence Asp Val Ser Thr R<sub>1</sub> R<sub>2</sub> R<sub>3</sub> Val Leu Pro Asp R<sub>4</sub> Phe Pro Arg Tyr Pro Val Gly Lys Phe Phe R<sub>5</sub> R<sub>6</sub> Asp Thr Trp R<sub>7</sub> Gln Ser R<sub>8</sub> R<sub>9</sub> Arg Leu (formula (1)); wherein

R<sub>1</sub> is Ser or Pro;

R2 is Gln or Pro;

R<sub>3</sub> is Ala or Thr;

R<sub>4</sub> is Asp or Asn;

R<sub>5</sub> is Gln or Lys;

R<sub>6</sub> is Tyr or Phe;

R<sub>7</sub> is Arg or Lys;

R<sub>8</sub> is Ala or Thr; and

R<sub>9</sub> is Gly or Gln; wherein

the peptide promotes osteoblast proliferation.

63. (New) A method for increasing or maintaining bone density, comprising administering to a subject in need thereof an effective amount of a peptide comprising the amino acid sequence Asp Val Ser Thr R<sub>1</sub> R<sub>2</sub> R<sub>3</sub> Val Leu Pro Asp R<sub>4</sub> Phe Pro Arg Tyr Pro Val Gly Lys Phe Phe R<sub>5</sub> R<sub>6</sub> Asp Thr Trp R<sub>7</sub> Gln Ser R<sub>8</sub> R<sub>9</sub> Arg Leu (formula (1)); wherein

R<sub>1</sub> is Ser or Pro;

R2 is Gln or Pro;

R<sub>3</sub> is Ala or Thr;

R<sub>4</sub> is Asp or Asn;

Rs is Gln or Lys;

R<sub>6</sub> is Tyr or Phe;

R<sub>7</sub> is Arg or Lys;

R<sub>8</sub> is Ala or Thr; and

R<sub>9</sub> is Gly or Gln; wherein

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the peptide promotes osteoblast proliferation.

64. (New) A method for stimulating osteoblast growth or inhibiting osteoblast apoptosis, comprising administering to a subject in need thereof an effective amount of a peptide comprising the amino acid sequence Asp Val Ser Thr R<sub>1</sub> R<sub>2</sub> R<sub>3</sub> Val Leu Pro Asp R<sub>4</sub> Phe Pro Arg Tyr Pro Val Gly Lys Phe Phe R<sub>5</sub> R<sub>6</sub> Asp Thr Trp R<sub>7</sub> Gln Ser R<sub>8</sub> R<sub>9</sub> Arg Leu (formula (I)); wherein

R<sub>1</sub> is Ser or Pro;
R<sub>2</sub> is Gln or Pro;
R<sub>3</sub> is Ala or Thr;
R<sub>4</sub> is Asp or Asn;
R<sub>5</sub> is Gln or Lys;
R<sub>6</sub> is Tyr or Phe;
R<sub>7</sub> is Arg or Lys;
R<sub>8</sub> is Ala or Thr; and
R<sub>9</sub> is Gly or Gln; wherein
the peptide promotes osteoblast proliferation.